ABSTRACT

EFFECT OF ALGINATE POLYMER CONCENTRATION ON IN VITRO ANTIBACTERIAL ACTIVITY OF CIPROFLOXACIN HCl – ALGINATE MICROSPHERES ON *Staphycloccus aureus* AND *Pseudomonas aeruginosa*

Husniatul Fitriah

The aim of this research was to investigate antibacterial activity of microsphere ciprofloxacin HCl using alginate as polymer matrix. Antibacterial test was performed by diffusion method using bacteria *Staphycloccus aureus* and *Pseudomonas aeruginosa*. Antibacterial activity of microsphere ciprofloxacin HCl microspheres in phospat buffer solution pH 7,2 ± 0,1 as stimulated of pH condition of cystic fibrosis's patient. Fresh ciprofloxacin HCl – alginate microspheres and ciprofloxacin HCl release samples at interval time of 0, 8, 12, 16, and 24 hours. Result showed an equal between standart ciprofloxacin HCl standart, microsphere siprofloksasin HCl and microsphere ciprofloxacin HCl with release samples from microsphere on treatment of *Staphycloccus aureus* and *Pseudomonas aeruginosa* bacteria.

Keywords : Ciprofloxacin HCl, Microsphere, Antibacterial Activity.